AMENDMENT C	OF SOLICITATION/MOD	IFICATION OF CONTRA	ACT BPA NO.		1. CONTRACT I	D CODE	PAGE 1	OF PAGES	
2. AMENDMENT/MODIFICATI	ION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE R	REQ. NO.		5. PROJECT NO.	(If applicable)		
001 See bloo			OUTNMS 372						
6 ISSUED BY				ADMINISTERED BY (If other than Item 6)					
Regional Cont: American Emba: USAID Unit 70: APO AE 09892-	Regional Contracting Office American Embassy/Amman USAID Unit 70206 APO AE 09892-0206								
8. NAME AND ADDRESS OF	CONTRACTOR (No., street, county, S	State and ZIP Code)		(X)	9A. AMENDMENT C	F SOLICITATION I	NO.		
a. NAME AND ADDRESS OF	CONTROLOR (No., sees, county, o	neste esta zir Gode)		(^)	Jordan-066a				
To all Offerors/Bidders									
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				Х	06-12-2006				
					10A. MODIFICATIO	N OF CONTRACT/	ORDER NO.		
					10B. DATED (SEE	ITEM 13)			
CODE		FACILITY CODE		-					
	11. THIS IT	EM ONLY APPLIES TO	AMENDMENTS OF	SOLIC	CITATIONS				
	red solicitation is amended as s					is extended,	is not ext		
by telegram or letter, and date specified. 12. ACCOUNTING AND APPE	13. THIS ITEM A	PPLIES ONLY TO MOD S THE CONTRACT/ORD	IFICATIONS OF CO	NTRA	CTS/ORDER	o the opening			
SET FORTH IN ITEM	BERED CONTRACT/ORDER IS MODIFIED 14, PURSUANT TO THE AUTHORITY OF	FAR 43.103(b).	HANGES (such as changes I	in paying of	ffice, appropriation da	te, etc.)			
C. THIS SUPPLEMEN	ITAL AGREEMENT IS ENTERED INTO PI	URSUANT TO AUTHORITY OF:							
D. OTHER (Specify to	ype of modification and authority)	92,316.3							
E. IMPORTANT:	Contractor is not,	is required to sign this docum	ent and return	copi	es to the issuing	office.			
14. DESCRIPTION OF AMENI	DMENT/MODIFICATION (Organized by	y UCF section headings, including solicitati	on/contract subject matter where fe	easible.)					
Jordan 06-6a	f this Amedment is to p for the Upgrade of Mafr om July 31, 2006 to Aug	aq Wastewater Treatment	Plant and to exter	-				on	
	terms and conditions of the document ref	erenced in Item 9A or 10A, as heretofore of							
15A, NAME AND TITLE OF SI	IGNER (Type or print)		Thomas Stephens Regional Contro	В	, \	e or print)			
15B. CONTRACTOR/OFFEROR 15C. DATE SIGNE			16B. UNITED STATES OF AMER	P W	thou	NS C	16C. DATE SIGN	ED /	
(Signature	of person authorized to sign)		(Signat),	ure of Cont	racting officer)		+//1/	060	

## Answers to Questions RFP Jordan 06-6a "Upgrade of Mafraq Wastewater Treatment Plant"

Question 1: It is preferred that the relation between CMC and TEAM will be

through USAID or WAJ. Please advise?

Answer 1: Please refer to Task A-1 under section C of the RFP.

Question 2: It was mentioned in the last two sentences in Task A-1 of sub clause A. Task A of clause IV Detailed Tasks Descriptions of section C the following:- "Note: Reviews and approvals by TEAM to be submitted within 2 weeks of receiving such a request from CMC". We think that 2 weeks for revision and approval by TEAM is not enough, we suggest that this period of revision and approval by Team to be 1 month. Please advise.

Answer 2: It is important that the TEAM submits comments/approvals within 2 weeks.

Question 3: The time required to complete Task A is 9 months as was mentioned in section C. Task A is divided into two subtasks. Is there a time frame to complete each subtask?

Answer 3: Task A-2 should be completed at least 3 months prior to end of Task A (9 months) to allow WAJ to initiate procurement of a construction contractor. Final schedule to be agreed with WAJ upon this contract award.

Question 4: What is the Acquisition Strategy and Duration for this program?

Answer 4: This is a full and open competition. For durations, please refer to Section B of the RFP.

Question 5: Is there an Incumbent Contractor?

Answer 5: There is no incumbent Contractor.

Question 6: Is there an estimated Award Date?

Answer 6: Award is anticipated in the first quarter of FY07.

Question 7: Does Solicitation number: Jordan066a replace Solicitation Number: Jordan06-10?

Answer 7: Yes.

Question 8: It is our understanding that federal procurements must use the SF 330 form, in accordance with the Brooks Act and as detailed in FAR Part 36.603. That is, it is our understanding that agencies such as USAID are required to request qualifications first, using the SF 330 form, before proceeding to technical and cost proposals. However, the Mafraq RFP requests technical and cost proposals rather than an

- SF 330. Does this procurement fall under an exemption from the requirement to use the SF 330 form? Thank you.
- Answer 8: Please note that SF330 is not required for this procurement. Please abide to the requirements of the RFP.
- Question 9: We noticed that in the covering letter the invitation is for US organizations permitted by law to practice the profession of engineering, and local Jordanian engineering consulting firms classified as Class 1A in the field of Water and Wastewater, while the RFP says the services code is 000 which means for US firms only.
- Answer 9: Both US firms and Local Jordanian engineering consulting firms classified as Class 1A in the field of Water and Wastewater can submit proposals as primes.
- Question 10: Will the design/construction drawings for the existing plant be made available to all bidders? Where/how will these be made available?
- Answer 10: The As-built drawings for the existing plant are available at WAJ for review. Please contact Engineer Mohammad Mansour Director of Design and Planning Directorate at WAJ. Contact information: Tel: +962-6-5680100 Ext 1494. Mobile +962-777429150. The email is as below: Mohammed Mansour@mwi.gov.jo.
- Question 11: Are the previously prepared Design/Build documents (prepared by PA Consultant Group/CH2M-Hill/Engicon) available to all bidders? Can WAJ please clarify what (if any) elements of the previously proposed facilities were objectionable?
- Answer 11: There is no need to make available the previously prepared Design-Build documents. In general WAJ and USAID were and are still looking for low-tech/low-cost solutions to upgrade the plant and meet the latest edition of JS893.
- Question 12: Is the report entitled "Assessment of the Upgrading of the Mafraq Wastewater Treatment Plant," dated July 2005, available to all bidders?
- Answer 12: The Assessment Report is now available at the following link as Attachment 5. http://www.usaidjordan.org/aboutus docs.cfm.
- Question 13: Some material in the attachments was not made available on the website; please provide the following:
  - a) RFP Attachment 1 (Geotechnical Report): Drawings GD-1 and GD-2

Drawings GD-1 and GD-2 are available as Attachment 6 on <a href="http://www.usaidjordan.org/aboutus\_docs.cfm">http://www.usaidjordan.org/aboutus\_docs.cfm</a>.

- b) RFP Attachment 2 (Task 1 Report Treated Wastewater Reuse Feasibility and Conceptual Design): Figures and Appendices Figures and appendices are available as Attachments 7 & 8 on http://www.usaidjordan.org/aboutus\_docs.cfm.
- b) RFP Attachment 3 (Task 3 Report EA for WWTP and Reuse Application): Figures and Appendices Figures and appendices are available as Attachments 9 & 10 on http://www.usaidjordan.org/aboutus docs.cfm.
- Question 14: RFP Attachment 3, Environmental Assessment: It is noted that a fair amount of work is anticipated for the updating of the Environmental Assessment. Please confirm that the intended level of effort will not include a comprehensive re-work of the EA and that the intent is to provide an amendment to the existing EA addressing selected, specific issues including the change in treatment process, and mitigation/implementation plan.
- Answer 14: Please refer to Section C of the RFP. Under Task A-1, items 21and 22 describe the needed work. All work to be in accordance with CFR Reg 216. However, the intent is not to have a comprehensive re-work of the EA.
- Question 15: RFP Attachment 4, Section 1.1: Have capital and O&M cost estimates been developed? If so, will these be made available to all the bidders?
- Answer 15: Capital cost at the time of preparing the concept design was about US\$ 4.9 million. O&M costs are in the range of US\$ 150,000 per year. An independent and confidential cost estimate for the upgrade of the plant must be prepared under Task A by the CMC.
- Question 16: RFP Attachment 4, General: What are the minimum requirements for the Instrumentation and Control: centralized control scheme such as SCADA? or decentralized control scheme field control panels with central monitoring panel in the administration building?
- Answer 16: The CMC who will develop the concept design has to determine the minimum requirements for instrumentation and control. Decision should be based on the available funds for the construction of the upgrade of the existing plant. USAID and WAJ are looking for low-tech/low-cost solutions.
- Question 17: RFP Attachment 4, Section 1.4: Appendix 2 (conceptual design calculations) is not included. Will these be made available to all bidders?
- Answer 17: The concept design calculations are now available at the following link as Attachments 11 and 12. <a href="http://www.usaidjordan.org/aboutus\_docs.cfm">http://www.usaidjordan.org/aboutus\_docs.cfm</a>.

## Question 18: RFP Attachment 4, Section 2.8, Table 2.8-3:

a) Please clarify the proposed effluent limits for TP and Turbidity; for this project, are these "0" or "Not Applicable"?

The plant is to be designed for effluent to be discharged to streams or wadis or water bodies in accordance with the latest edition of the Jordanian Standards "Water-Reclaimed domestic wastewater" JS 893. The current issue is JS 893/2002.

b) Based on our reading of JS893, 2002 – Table 1, it appears that the TP limit should read T-PO4, or total Orthophosphate to agree with the effluent standard. The limit is 15 mg/L. Please confirm the project intent.

The question is correct in substance because of the fact that all influent phosphorus will be converted to ortho-phosphorus form within the biological unit processes. Phosphorus will leave the system in the form of organic phosphorus in the effluent TSS (we can assume safely that the majority of the effluent's TSS are in fact organic, or VSS). The P content of the effluent VSS is usually assumed to be around  $\sim 0.5\%$ . Then P associated with the solids loss in the effluent would be 120 mg/L x 0.05 = 6 mg/L. We could expect to see much lower concentrations because of the presence of recirculating sand filters. Assuming that the TSS content in the effluent from the filters could be around 10 mg/L gives us expected P concentration of < 0.5 mg/L.

- c) D.O. limit is noted, yet there is no provision for effluent reaeration. Has it been determined that re-aeration will not be required for this project? If required, please confirm the limit will only be applicable for flows bypassed to the Wadi (consistent with JS893, 2002 Table 1 and Table 3 columns B and C).

  Re-aeration is the best way to increase the oxygen content of the treated wastewater. The detailed design should provide effluent reaeration via cascading discharge channel. This detail has not been included in the conceptual design, because of the unknown discharge point and elevations. Effluent to be in accordance with the latest edition of JS893.
- d) It is noted that the limit for BOD is 60 mg/L (filtered). A similar limit applies to TSS and should be added. Please confirm.

  Yes TSS should be added, however, please check JS 893/2002 Table 1 and the associated notes. Please refer to the assessment report.

e) Limit for Fat Oil and Grease (8 mg/L) is missing. Please provide or confirm. Limit as per JS 893/2002 Table 1.

 f) Limit for D.O. should read only greater than 1.0 mg/L. Please confirm.

Correct, should read greater than 1.0 mg/l.

- Question 19: RFP Attachment 4, Section 3: Were Aerated Grit Chambers considered for use at this plant? Will scum removal equipment be provided?
- Answer 19: Aerated grit chambers were not considered for use at this facility. The static primary settlers would remove the grit carried by the influent sewer. It will be important for the CMC to make all efforts to locate the static settlers in the back of the plant and avoid pumping of raw influent. Initial general look at the elevations shows such possibility. The static settlers will have surface scum removal mechanism. Again the CMC should look at relocating the settlers in the back of the plant (west end), close to the sludge storage lagoons, the sludge drying beds and the composting pads.
- Question 20: RFP Attachment 4, Section 3.7, Table 3.7-1: What is the basis for selection of bolted steel tanks vs. cast-in-place concrete tanks for the 25 m diameter basins? What is the basis for the 36.6 hour HRT? Accompanying text mentions that excess biomass will be withdrawn from the denitrification tanks; however this is not reflected in Figures 3 and 4; what is intended?
- Answer 20: The Cost is a major factor. The 36.6 hours HRT in the denitrification basin is based on the required Mean Cell Residence Time (MCRT) required for denitrifying all of the recycled nitrates from the RSFs. We proposed a "fixed-film type" denitrifying system because lower HRT is needed (higher biomass content associated with the media). The final design shall provide the possibility to recycle portions of the RSF effluent to all other biological units (ASB, FL, etc). A dedicated line allowing periodic withdrawal of the excess biomass shall be provided in the final design. This small amount of accumulated denitrifying biomass (the majority is fixed to the media) should be discharged to the closest biological treatment unit; it does not need to go to the sludge storage lagoon.
- Question 21: RFP Attachment 4, Section 3.8, Table 3.8-1: What are the proposed volumes for the various Aerated Stabilization Basins?

Answer 21: Please refer to the Concept Design Calculations provided.

Question 22: RFP Attachment 4, Section 3.10, Line 6: Please clarify reference to "aeration tubes"; are these the underdrains and vents?

Answer 22: Yes.

- Question 23: RFP Attachment 4, Section 3.14: Has the existing chlorine contact structure been evaluated for the proposed expansion?
- Answer 23: Please refer to Section 3.14 of the Final Concept Design Report.
- Question 24: RFP Attachment 4, Section 3.15: It is noted that a 90,000 m3 effluent storage pond is to be provided. Based on Section C, IV, Task A-2 description, it is understood that the effluent storage pond will be part of Task A-2. Further it is understood that Attachment 2 is to be used as guidance in the design of the reuse system components. Attachment 2, Section 11.3 Recommendations indicates that the recommended system is a combination of Scenarios 1 and 2 (Ref. Section 9.2.2). Please provide clarification of the minimum requirements.
- Answer 24: Effluent storage pond as recommended in Task 1 Report provided earlier will be part of Task A-2 as indicated in Section C of the RFP. The reuse system, as indicated in Section C of the RFP, includes a storage basin, a pump station, and a main line with turn-outs to deliver treated wastewater to farm land adjacent to the plant. The adjacent land has been designated and acquired by the Water Authority of Jordan.
- Question 25: RFP Attachment 4, Section 3.19.9: What are the 25-year and 100-year flood elevations at the project site?
- Answer 25: To be determined during final design stage.
- Question 26: RFP Attachment 4, Appendix 1, Figure 4: Mass balance for TP cannot be followed precisely. What are the supporting assumptions and calculations?
- Answer 26: Phosphorus is not regulated and thus P removal rates and corresponding mass balance are based on literature assumptions and are thus rather approximate. Because P removal could be mandated by WAJ at any time in the future, we would suggest generating in the initial stages of the final design a detailed mass balance. This mass balance should show in details all relevant wastewater parameters. It could examine, for example, the need to provide space for future chemical addition, provided that WAJ tightens in the limits on phosphorus.
- Question 27: RFP Section 2, Key Personnel, page 53: Text indicates that the proposal is to include an annex with "comprehensive terms of reference" for key personnel. Section 2.3 on page 54 states that the offeror is to elaborate on key personnel capabilities and experience as "they relate to their terms of reference." Please explain what the phrase "terms of reference" means.
- Answer 27: Terms of reference means the duties (job description) of these key personnel on the job.

- Question 28: Section L.7 (c) mentions past performance report forms as an example of an attachment. Are these forms required? If so, what form is to be used?
- Answer 28: Please refer to Answer 30.
- Question 29: Section L.6 states that "the issuing office receives international mail only once a week." Can you please specify on which day of the week the issuing office receives international mail?
- Answer 29: The issuing office receives international mail that constitutes boxes every Wednesday.
- Question 30: In addition to providing a past performance narrative as indicated by sections 3 and 4 of the technical approach, would USAID like the offeror to provide past performance references in J3 short form? If so, how many past performance references should be provided, and can these be enclosed in the proposal as an annex?
- Answer 30: Please note that section 3 under sub-section L.7 of the RFP requires narrative information to be submitted to highlight previous experience. The intent of Section 4 under sub-section L.7 of the RFP is to provide narrative information on past performance with regards to quality of product or service, cost control, timeliness of performance, past performance of key personnel, and customer satisfaction. Furthermore, section L.7 (b) of the RFP states that past performance references shall be included as an annex or attachment of the Technical Proposal. Contractor Performance Reports-Short Form- are required to be provided as an annex to the technical proposal. Information shall be provided on either all such contracts within the past three years (that are similar to the statement of work), or the last ten contracts performed (that are similar to the statement of work), whichever is fewer.
- Question 31: The construction contract is to be administered using FIDIC Conditions of Contract. Do you anticipate use of FIDIC 4th Edition, or the new 1999 FIDIC Red book?
  - Answer 31: We are anticipating the use of FIDIC 4<sup>th</sup> Edition.
  - Question 32: In reading Task A-1, our understanding is that the Basis of Design Report and design will be based on the conceptual design and that no changes will be considered. Is that correct?
  - Answer 32: Yes that is correct with regards to the process; however, final and best locations of units should be based on cost savings. The main theme is to produce an effluent that is in accordance with the latest Jordanian Standards JS893 for discharge into wadis or water bodies utilizing low-cost/low-tech solutions.
  - Question 33: Throughout the Conceptual Design Report, odor control is mentioned in several areas as a consideration in the selection of equipment (pg. 3-

3 for mechanically cleaned screens) and design approach (pg.3-14 for recycle pumping station) yet there is no actual odor control system mentioned in design. Will an odor control system be required at the WWTP?

Answer 33: No odor control system is required.

- Question 34: The Conceptual Design Report presents proposed structures at the WWTP through year 2025. Future expansion (beyond 2025) is shown for the clarifiers, wetlands, sludge drying beds, et cetera, but no expansion is shown in areas such as the screenings facility, primary pumping stations and sedimentation/thickening tanks. What provisions, if any, are required at the headworks of the WWTP for future expansion beyond year 2025?
- Answer 34: Even if not shown on the conceptual sketch, we agree that space could be reserved for future, enlarged headworks. Such requirement could be determined during the initial stage of Task A-1 with all participants in the project.
- Question 35: Are there preferences and/or limitations of equipment or material selection?
- Answer 35: No. However, in the RFP under Task A-1, item 5, the TEAM must approve the drawings for US supplied equipment.
- Question 36: In recent years, design of WWTP has incorporated security (fencing, cameras, etc) into their designs. Are any such provisions being considered for this design?
- Answer 36: No. Please note that there is an existing fence around the site.
- Question 37: Regarding clause "III. Staffing": it is our understanding that this is the staff required for the construction supervision phase. Our question is: do we need to specify names for these positions and provide CVs or does a letter of commitment of providing the staff subject to interview and/or approval is sufficient at this stage. Please note that all names and CVs for the design phase will be provided. In addition, in Section M.2 of the evaluation criteria, specifically regarding the Key personnel, do the 35 points cover the construction supervision staff.
- Answer 37: Offerors have to specify the names of the candidates and provide CV's at this time. These are evaluated under Section M- 2.1 "Staffing Plan". If any of the supervision staff are designated as Key Personnel then they will be evaluated under 2.3 "Key Personnel". Please refer to ADS 302.3.5.3 at the link below for guidance on Key Personnel: <a href="http://www.usaid.gov/policy/ads/300/302.pdf">http://www.usaid.gov/policy/ads/300/302.pdf</a>

- Question 38: In Section IV. (Detailed Tasks Description) page 9, task A-1 point 7, regarding the bidding documents, we would like to clarify if the consultant can prepare the detailed specification in the Construction Specification Institute (CSI) 16 division format. And as for the general and special conditions do they have to be prepared according to FEDIC 1999 as per the requirement of the Ministry of Public Works.
- Answer 38: Detailed specifications can be as suggested. We are anticipating the use of FIDIC 4<sup>th</sup> Edition.
- Question 39: In Section IV. (Detailed Tasks Description) page 9, task A-1 point 4, the consultant is required to carry out survey work. We would like to know if the soil investigation report, previously prepared, will be made available to consultant or will the consultant be required to undertake additional geo-investigation work.
- Answer 39: The Soil investigation Report that was done previously was already attached to the RFP as mentioned under "VIII. Attachments" page 14.